# Step 1: install software

After sucessfully installed CentOS 7, continuous install these software:

## Install Python 3.7.3

Requirement: install GCC

sudo yum install gcc openssl-devel bzip2-devel libffi-devel -y

Install wget if needed

sudo yum install wget -y

Download installation file

cd /usr/src

sudo wget https://www.python.org/ftp/python/3.7.3/Python-3.7.3.tgz

Extract downloaded package

sudo tar xzf Python-3.7.3.tgz

Install Python 3.6.5: Use below set of commands to compile Python source code on your system using altinstall.

cd Python-3.7.3

sudo ./configure --enable-optimizations

sudo make install

**make altinstall** is used to prevent replacing the default python binary file **/usr/bin/python**

Remove downloaded source

rm /usr/src/Python-3.7.3.tgz

Check Python version

python3.7 -V

Make link to Python3

sudo ln /usr/local/bin/python3.7 /usr/bin/python3

Reference: <https://tecadmin.net/install-python-3-6-on-centos/>

Upgrade **Pip**

sudo curl https://bootstrap.pypa.io/get-pip.py -o get-pip.py

sudo python3 get-pip.py

sudo ln /usr/local/bin/pip3 /usr/bin/pip3

## Install Django

## Install Mongo engine

Create a /etc/yum.repos.d/mongodb-org-4.0.repo file so that you can install MongoDB directly using yum:

[mongodb-org-4.0]

name=MongoDB Repository

baseurl=https://repo.mongodb.org/yum/redhat/$releasever/mongodb-org/4.0/x86\_64/

gpgcheck=1

enabled=1

gpgkey=https://www.mongodb.org/static/pgp/server-4.0.asc

Install MongoDB by command:

sudo yum install -y mongodb-org

## Install Git

sudo yum install git -ycl

# Step 2: Deploy to server

## Checkout Server API

sudo git clone https://gitlab.com/vohungvi/microbe.git /var/microbe/code

## Install dependencies

cd /var/microbe/code

sudo pip3 install -r requirements.txt

## Open port 80 for Django

sudo yum install firewalld –y

sudo systemctl start firewalld

sudo firewall-cmd --zone=public --permanent --add-port=80/tcp

sudo firewall-cmd --zone=public --permanent --add-service=https

sudo firewall-cmd --zone=public --permanent --add-port=27017/tcp

sudo systemctl restart firewalld

Close port

sudo firewall-cmd --zone=public --permanent --remove-port=27017/tcp

sudo firewall-cmd --reload

## Create Mongodb user

mongo

use orchid

db.createUser(

{

user: "vohungvi",

pwd: "viscomsolution",

roles: [ { role: "readWrite", db: "orchid" } ]

})

## Install Virtual Environment

sudo python3 -m venv env

Disable SE linux

sudo vi /etc/sysconfig/selinux

Edit line same as below:

SELINUX=disabled

## Run server

sudo bash ./start.sh

## Auto backup dabase every hour: add this to crontab

sudo crontab -e

1 \* \* \* \* mongodump --host localhost --port 27017 --username hoasenxanh --password viscomsolution --out /var/microbe/backup\_db --db microbe

Auto get new SSL certificate at begin of month

0 17 1 1-12 \* certbot renew

## Install Nginx

sudo yum install python-devel gcc

sudo pip3 install uwsgi

sudo yum install epel-release

sudo yum install nginx

## Set nginx allow maximum request size to 10MB

edit file **/etc/nginx/nginx.conf** and add line:

vi /etc/nginx/nginx.conf

http {

client\_max\_body\_size 10M;

...

...

}